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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/841,089	04/25/2001	Donald R. Ryan	A0477-US-NP XERZ 2 01054	4959
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Fay Sharpe LLP 1228 Euclid Avenue, 5th Floor The Halle Building Cleveland, OH 44115			HUNTSINGER, PETER K	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/841,089	Applicant(s) RYAN ET AL.	
	Examiner Peter K. Huntsinger	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-34 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 19 recites the limitation "the production manager controller device" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6, 15-19, 21-24, 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen '299 in view of DeHority '639 and Mori '000.

Referring to **claim 1**, Allen '299 discloses an integrated and digital production and finishing system for producing and finishing work pieces of a job, comprising:

a) a production device for producing the work pieces of the job (printer 14 of Fig. 1, col. 2, lines 51-53);

b) a finishing device for finishing the output of the production device, such finishing device being controlled separately from the production device and having at least one constraint (finishing machine of Fig. 1, col. 2, lines 51-53);

c) a production monitor controller that receives the at least one constraint from the finishing device and outputs job coordination information, based at least in part upon constraints of the finishing device (computer 12 of Fig. 1, col. 3, lines 17-26, instructions indicate various things about the tasks that are to be performed by the finishing machines); and

d) a finishing module coordinator that, after receiving job coordination information output from the production monitor controller, identifies each device necessary for completion of the job, controls and directs operation of the finishing device (control logic of Fig. 3, col. 4, lines 29-61).

Allen '299 does not disclose expressly outputting optimization information wherein a user is presented with optimization recommendations.

DeHority '639 discloses outputting optimization information, wherein a controller presents a user with optimization recommendations (66 of Fig. 2B, col. 4, lines 20-32, if a mismatch does occur the printer operator is notified of the characteristics of the mismatch and given an opportunity to change the printer characteristics).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to present a user with optimization information. The motivation for doing so would have been to allow a user to indicate the closest match to print job requirements rather than rejecting the job completely.

Allen '299 does not disclose expressly determining if each needed device is available and tracking operation of the finishing device.

Mori '000 discloses determining if a needed device is available and tracking operation of a device (Fig. 3, col. 3-4, lines 54-67, 1-14, CPU 26 determines whether the printer is available for printing).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to determining whether a needed device is available. The motivation for doing so would have been to enable completion of a print job that cannot be completed due to unavailability of a device. Therefore, it would have been obvious to combine DeHority '639 and Mori '000 with Allen '299 to obtain the invention as specified in claim 1.

Referring to **claim 2**, Allen '299 discloses wherein the production device comprises a printing device and wherein the job is a print job (printer 14 of Fig. 1, col. 2, lines 51-53).

Referring to **claim 3**, Allen '299 discloses wherein the finishing device performs packaging operations (col. 2, lines 47-50).

Referring to **claim 4**, Allen '299 discloses wherein the production monitor controller outputs job coordination information comprising identity of job segments determined at least in part upon constraints of the finishing device (col. 6, lines 7-18).

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Referring to **claim 5**, Allen '299 discloses wherein the production monitor controller outputs at least a portion of finishing job segment information prior to production of at least a portion of the job by the production device (col. 7, lines 3-13).

Referring to **claim 6**, Allen '299 discloses wherein the production monitor controller output comprises a job segment identifier uniquely associated with each identified job segment (barcode 38 of Fig. 2, col. 3, lines 54-61).

Referring to **claim 15**, Allen '299 discloses wherein the production manager controller outputs job coordination information comprising:

- a) identification of different job segments for differing operations of the job (col. 7, lines 6-11),
- b) instructions for production of each production job segment (col. 3, lines 13-15);
- and
- c) instructions for finishing of each finishing job segment (col. 4, lines 29-45).

Referring to **claim 16**, Allen '299 discloses wherein the production manager controller outputs further comprise:

- a) integrity descriptors for use by the finishing module coordinator (col. 3, lines 58-61);
- b) at least one virtual print job ticket (col. 3, lines 18-27); and
- c) at least one virtual finishing job ticket (col. 3, lines 18-27).

The job tickets disclosed by Allen et al. contain printing instructions and finishing instructions. Printing two different jobs would result in two different job tickets.

Referring to **claim 17**, Allen '299 discloses a plurality of finishing devices (Finishing components 52 of Fig. 3, col. 4, lines 42-44) and a plurality of production

devices (col. 2, lines 55-58) wherein a plurality of finishing devices are controlled separately from each of the production devices.

Referring to **claim 18**, Allen '299 discloses wherein the finishing module coordinator directs operation of at least one finishing device by providing human readable instructions to human operators (col. 3, lines 30-43).

Referring to **claim 19**, Allen '299 discloses wherein at least some of the functions of the finishing module coordinator are performed within the same apparatus as the production manager controller device (col. 3, lines 10-12) (col. 3, lines 17-26). The control panel or the instruction sheet can be used to configure the finishing machine.

Referring to **claim 21**, Allen '299 discloses an integrated and digital method for coordinating the printing and finishing of a print job, comprising:

a) printing job segments using a printing device (printer 14 of Fig. 1, col. 2, lines 51-53) having at least one constraint (100 of Fig. 6, col. 7, lines 3-5);

b) finishing the printed job segments using a finishing device (finishing machine of Fig. 1, col. 2, lines 51-53) that is controlled separately from the printing device and having at least one constraint (110 of Fig. 6, col. 7, lines 30-32);

c) outputting job coordination information from a production monitor controller (computer 12 of Fig. 1, col. 3, lines 17-26), such job coordination information being based upon the constraints of the finishing device (102 of Fig. 6, col. 7, lines 14-20);
and

d) directing and controlling operation of the finishing device by a finishing module coordinator (control logic of Fig. 3, col. 4, lines 29-45) after such finishing module

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coordinator receives job coordination information from the production monitor controller (108 of Fig. 6, col. 7, lines 22-30).

Allen '299 does not disclose expressly outputting optimization information wherein a user is presented with optimization recommendations.

DeHority '639 discloses outputting optimization information, wherein a controller presents a user with optimization recommendations (66 of Fig. 2B, col. 4, lines 20-32, if a mismatch does occur the printer operator is notified of the characteristics of the mismatch and given an opportunity to change the printer characteristics).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to present a user with optimization information. The motivation for doing so would have been to allow a user to indicate the closest match to print job requirements rather than rejecting the job completely.

Allen '299 does not disclose expressly determining if each needed device is available and tracking operation of the finishing device.

Mori '000 discloses determining if a needed device is available and tracking operation of a device (Fig. 3, col. 3-4, lines 54-67, 1-14, CPU 26 determines whether the printer is available for printing).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to determining whether a needed device is available. The motivation for doing so would have been to enable completion of a print job that cannot be completed due to unavailability of a device. Therefore, it would have been obvious to combine DeHority '639 and Mori '000 with Allen '299 to obtain the invention as specified in claim 21.

Referring to **claim 22**, see the rejection of claim 4 above.

Referring to **claim 23**, see the rejection of claim 5 above.

Referring to **claim 24**, see the rejection of claim 6 above.

Referring to **claim 33**, see the rejection of claim 15 above.

Referring to **claim 34**, see the rejection of claim 16 above.

5. Claims 7, 8, 14, 25, 26 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen '299 ,DeHority '639 and Mori '000 as applied to claims 1 and 21 above, and further in view of Hower '434.

Referring to **claim 7**, Allen '299 discloses a finishing module coordinator (control logic of Fig. 3, col. 4, lines 29-45) that receives at least some job coordination information output from the production monitor controller (computer 12 of Fig. 1, col. 3, lines 17-26).

Allen '299 does not disclose expressly receiving job coordination information from a virtual finishing job ticket database.

Hower '434 discloses a virtual finishing job ticket database (print queue 42 of Fig. 2, col. 4, lines 41-48) that outputs job coordination information (col. 7, lines 30-32).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize a virtual finishing job ticket database. The motivation for doing so would have been to queue print finishing jobs so additional jobs can be handled while one job is currently printing. Therefore, it would have been obvious to combine Hower '434 with Allen '299 to obtain the invention as specified in claim 7.

Referring to **claim 8**, Allen '299 discloses wherein the production monitor controller outputs job coordination information comprising:

- a) identity of at least one job segment determined at least in part upon constraints of the finishing device (ID of Fig. 2) and
- b) a job segment identifier uniquely associated with job coordination information pertaining to the job segment (ID of Fig. 2).

Hower '434 discloses wherein the virtual finishing job ticket database stores a copy of the job ticket (col. 7, lines 30-32).

Because the job ticket of Allen '299 includes the job segment identifier, storing the job ticket as disclosed by Hower '434 would incorporate storing the job segment identifier.

Referring to **claim 14**, Allen '299 discloses wherein the production monitor controller outputs a virtual finishing job ticket (col. 3, lines 18-27).

Hower '434 discloses storing a copy of the job ticket in the virtual finishing job ticket database (col. 7, lines 30-32).

Referring to **claim 25**, see the rejection of claim 7 above.

Referring to **claim 26**, see the rejection of claim 8 above.

Referring to **claim 32**, see the rejection of claim 14 above.

6. Claims 9-13 and 27-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen '299, DeHORITY '639, Mori '000 and Hower '434 as applied to claims 8 and 26 above, and further in view of Neilsen '687.

Referring to **claim 9**, Allen '299 discloses a job segment identifier.

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Hower '434 discloses job coordination information stored in the virtual finishing job ticket database.

Allen '299 and Hower '434 do not disclose expressly a job segment identifier code that forms a vector.

Neilsen '687 discloses a job segment identifier code that is physically associated with a job segment wherein such job segment identifier code forms a vector to job coordination information, and pertaining to the job segment to which the job segment identifier code is physically associated (col. 6, lines 46-51).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to associate a pointer with a job segment identifier. The motivation for doing so would have been to not have to include actual data but refer to the data stored elsewhere so as to reduce the amount of memory needed. Therefore, it would have been obvious to combine Neilsen '687 with Allen '299 to obtain the invention as specified in claim 9.

Referring to **claim 10**, Neilsen '687 discloses wherein the job segment identifier code comprises recognizable text (col. 6, lines 46-51).

Allen '299 discloses printing the job segment identifier on a sheet located on the job segment (col. 3, lines 27-43).

Referring to **claim 11**, Neilsen '687 discloses the job segment identifier code (col. 6, lines 46-51).

Allen '299 discloses printing the job segment identifier on a sheet located on the job segment (col. 3, lines 27-43).

Referring to **claim 12**, Allen '299 discloses wherein the job segment identifier sheet contains job coordination information pertaining to the job segment that was outputted from the production manager controller (col. 3, lines 18-27).

Hower '434 discloses storing the job ticket in the virtual finishing job ticket database (col. 7, lines 30-32).

Referring to **claim 13**, Allen '299 discloses a virtual finishing job ticket reader for reading information from the job segment identifier sheet (barcode reader 44 of Fig. 3, col. 4, lines 54-61).

Referring to **claim 27**, see the rejection of claim 9 above.

Referring to **claim 28**, see the rejection of claim 10 above.

Referring to **claim 29**, see the rejection of claim 11 above.

Referring to **claim 30**, see the rejection of claim 12 above.

Referring to **claim 31**, see the rejection of claim 13 above.

7. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Allen '299, and further in view of Hower '434 and Mima '604.

Referring to **claim 20**, Allen '299 discloses a system for integrating and controlling assembler/finishing processes, comprising:

a production monitor controller capable of separating a production job into job segments based upon the capabilities and constraints of devices to be used in the production process (computer 12 of Fig. 1, col. 3, lines 17-26);

a finishing module coordinator, in communication with assembler/finisher devices (control logic of Fig. 3, col. 4, lines 29-45).

Allen '299 does not disclose expressly a database for storing job segment descriptions and a database for tracking job segments.

Hower '434 discloses at least one database for storing information concerning the capabilities and constraints of devices to be used in the production process and for storing job segment descriptions (col. 5, lines 10-21); and with at least one database, tracking job segments during the production process (print queue 42 of Fig. 2, col. 4, lines 41-48).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize printer profiles and a virtual finishing job ticket database. The motivation for doing so would have been to maintain a list of the finishing options currently available and to queue print finishing jobs so additional jobs can be handled while one job is currently printing.

Allen '299 does not disclose expressly providing control and integrity functions of job segments.

Mima '604 discloses providing control and integrity functions of job segments (page 6, paragraphs 62-63, determines if malfunction in printer occurs and recovery action is initiated)

At the time of the invention, it would have obvious to a person of ordinary skill in the art to provide control and integrity functions of job segments. The motivation for doing so would have been to take proper corrective actions when a printer malfunctions. Therefore, it would have been obvious to combine Hower '434 and Mima '604 with Allen '299 to obtain the invention as specified in claim 20.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Squires '567

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PETER HUNTSINGER whose telephone number is (571)272-7435. The examiner can normally be reached on Monday – Friday during 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (571)-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Peter K. Huntsinger/
Examiner, Art Unit 2625
/David K Moore/
Supervisory Patent Examiner, Art Unit 2625